WHAT IS CLAIMED IS:

1. A tracing control method, comprising:

initiating tracing of data during execution of a program that includes a plurality of instructions, said tracing initiation being based on a first trace control command embodied in one or more instructions of said program; and

halting said tracing based upon a second trace control command embodied in one or more instructions of said program.

2. The tracing control method of claim 1, wherein said first trace control command generates a trace enable indication and said second trace control command generates a trace disable indication.

3. The tracing control method of claim 2, wherein a trace control indication is embodied in a field of a trace control register that is written to upon execution of a trace control command.

4. The tracing control method of claim 2, wherein said first trace control command is inserted in an entry point to a section of code, and said second trace control command is inserted in an exit point to said section of code.

5. The tracing control method of claim 1, wherein said first trace control command and said second trace control command are included within said program prior to execution of said program.

6. A method for tracing a section of program code, comprising:

executing a program that includes a plurality of instructions, said plurality of instructions including one or more trace control commands,

initiating tracing of data upon entering a section of code in said program, said tracing initiation being based on a first trace control command in said program; and

halting said tracing upon leaving a section of code in said program, said halting being based upon a second trace control command in said program.

7. The method of claim 6, wherein said first trace control command generates a trace enable indication and said second trace control command generates a trace disable indication.

8. The tracing control method of claim 7, wherein a trace control indication is embodied in a field of a trace control register that is written to upon execution of a trace control command.

9. The tracing control method of claim 6, wherein said first trace control command and said second trace control command are included within said program prior to execution of said program.

10. A tracing system, comprising:

an embedded processor, said embedded processor including,

a processor core for executing instructions; and

trace generation logic that is operative to generate trace data for said instructions executing in said processor core, said trace generation logic capable of being controlled by hardware input signals and by a software-settable trace control register.

11. The tracing system of claim 10, wherein said embedded processor further includes a trace capture block that receives trace data from said trace generation logic.

12. The tracing system of claim 11, wherein said trace capture block sends trace data to an off-chip trace memory.

13. The tracing system of claim 11, wherein said hardware input signals are received by said trace generation logic from said trace capture block.

14. The tracing system of claim 10, wherein said embedded processor further includes a trace memory.

15. The tracing system of claim 10, wherein said software-settable trace control register includes a trace select field that indicates whether said trace generation logic operates based on controls provided by said hardware input signals or by said software-settable trace control register.

16. The tracing system of claim 10, wherein said software-settable trace control register is set by trace control commands that are embodied in one or more instructions of a program.

17. The tracing system of claim 16, wherein said trace control commands are included within said program prior to execution of said program.

18. A computer program product comprising:

computer-readable program code for causing a computer to describe an embedded processor, said embedded processor including a processor core for executing instructions, and trace generation logic that is operative to generate trace data for said instructions executing in said processor core, said trace generation logic capable of being controlled by hardware input signals and by a software-settable trace control register; and

a computer-usable medium configured to store the computer-readable program codes.

19. A computer data signal embodied in a transmission medium comprising:

computer-readable program code for causing a computer to describe an embedded processor, said embedded processor including a processor core for executing instructions, and trace generation logic that is operative to generate trace data for said instructions executing in said processor core, said trace generation logic capable of being controlled by hardware input signals and by a software-settable trace control register.

20. A method for enabling a computer to generate a tracing system, comprising:

transmitting computer-readable program code to a computer, said computer-readable program code including:

computer-readable program code for causing a computer to describe an embedded processor, said embedded processor including a processor core for executing instructions, and trace generation logic that is operative to generate trace data for said instructions executing in said processor core, said trace generation logic capable of being controlled by hardware input signals and by a software-settable trace control register.

21. The method of claim 20, wherein computer-readable program code is transmitted to said computer over the Internet.